

No. 628,700.

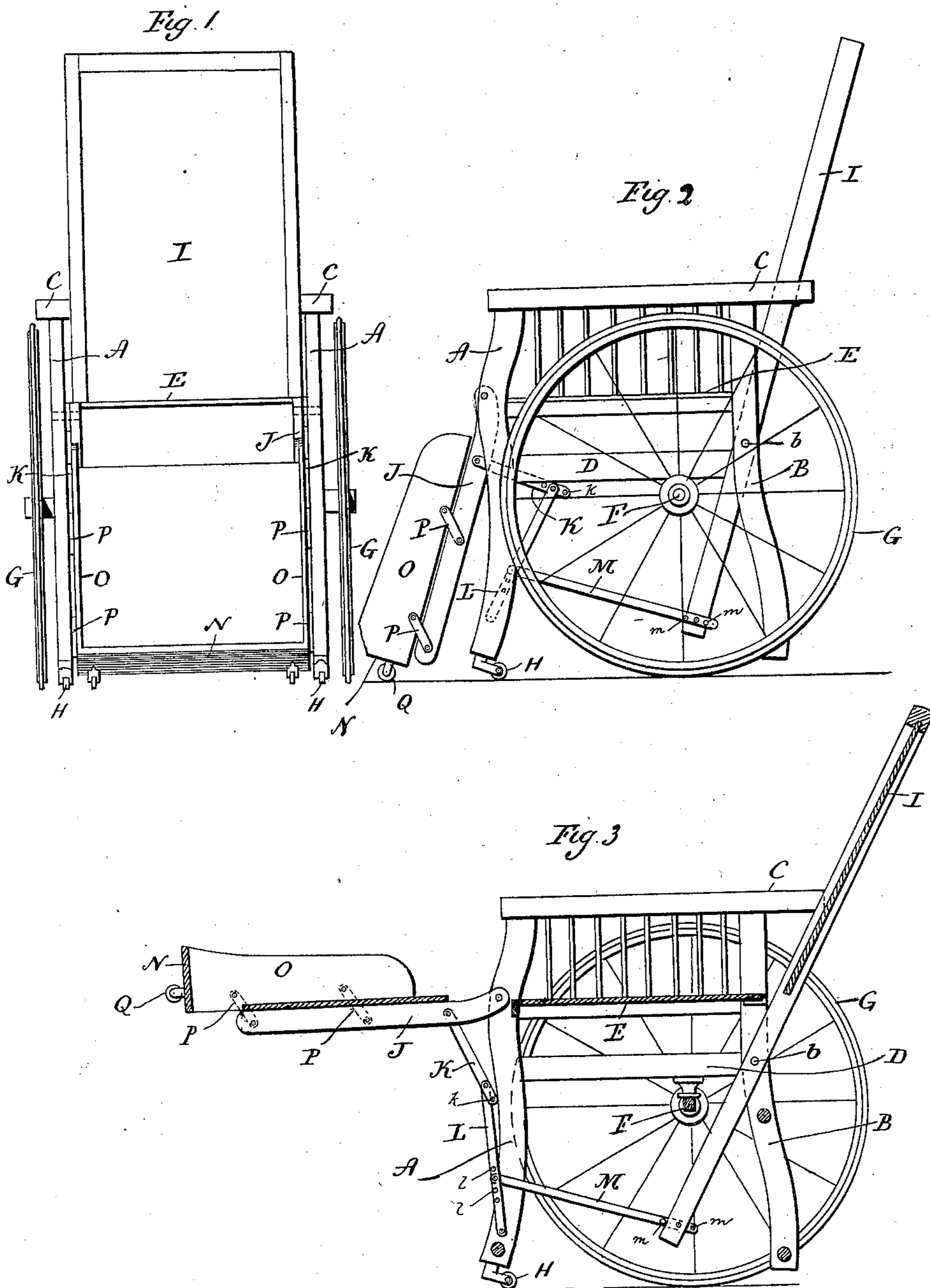
Patented July 11, 1899.

I. N. DANN.  
RECLINING CHAIR.

(Application filed Oct. 26, 1898.)

(No Model.)

3 Sheets—Sheet 1.



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Fig. 4

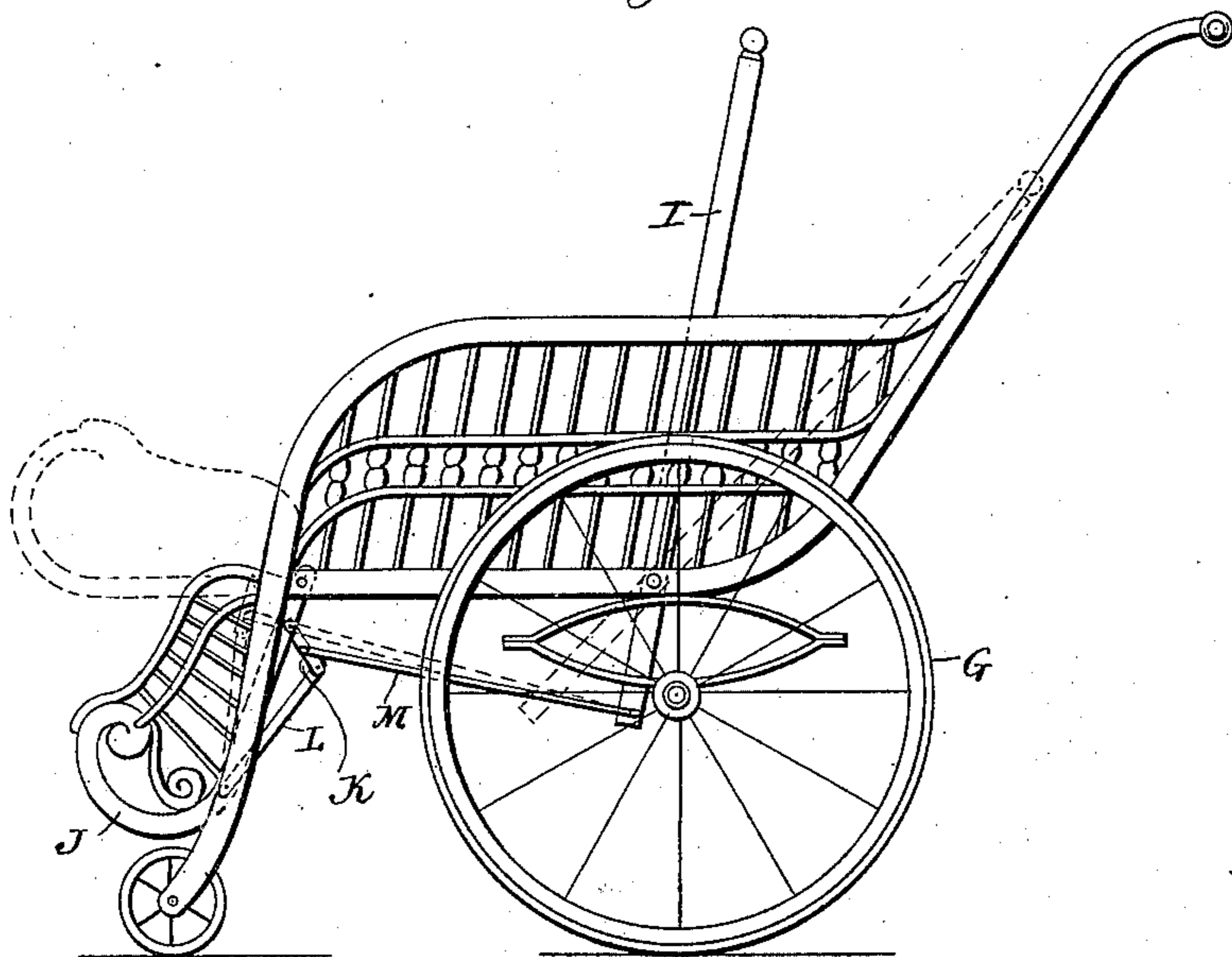
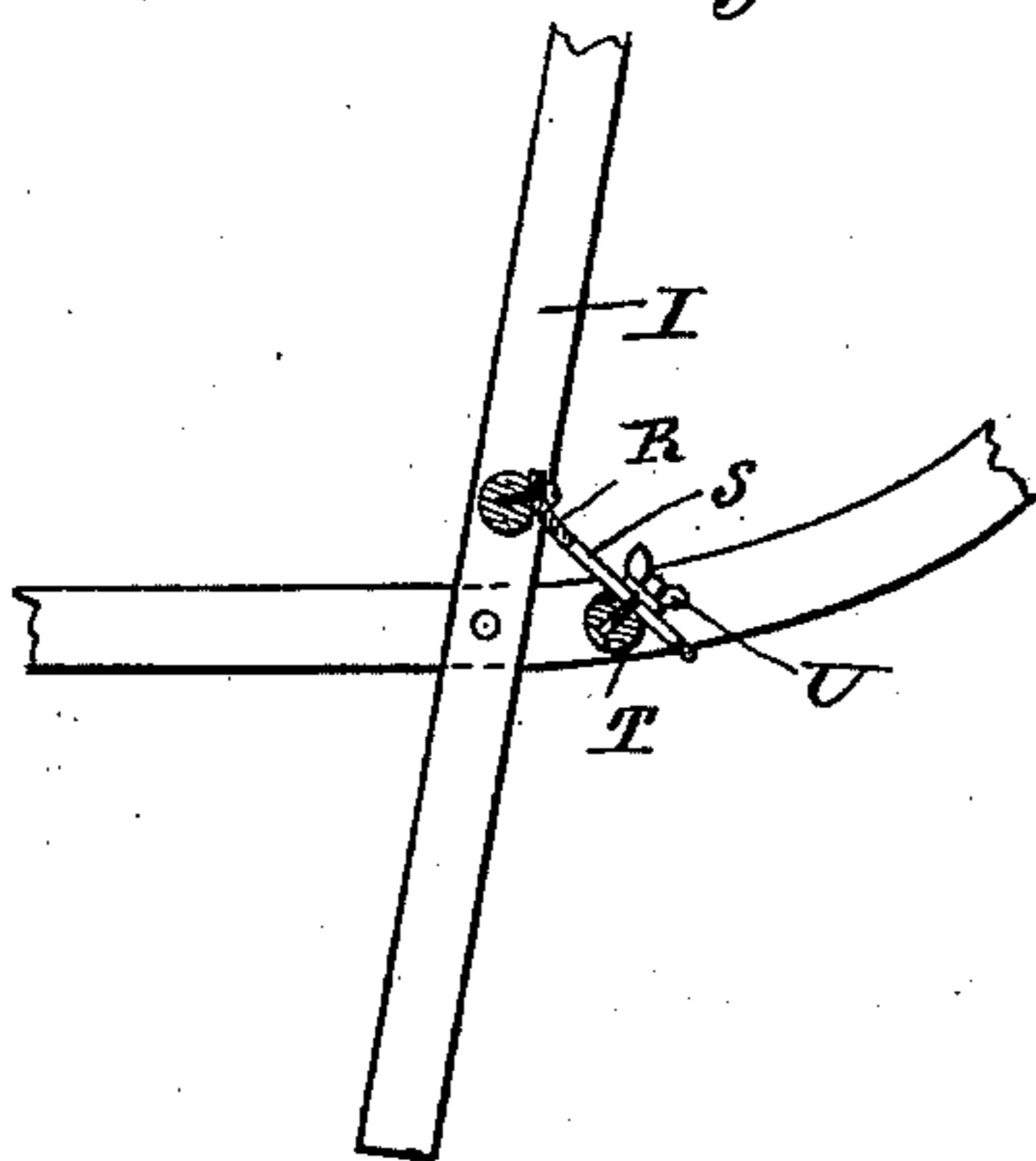


Fig. 5



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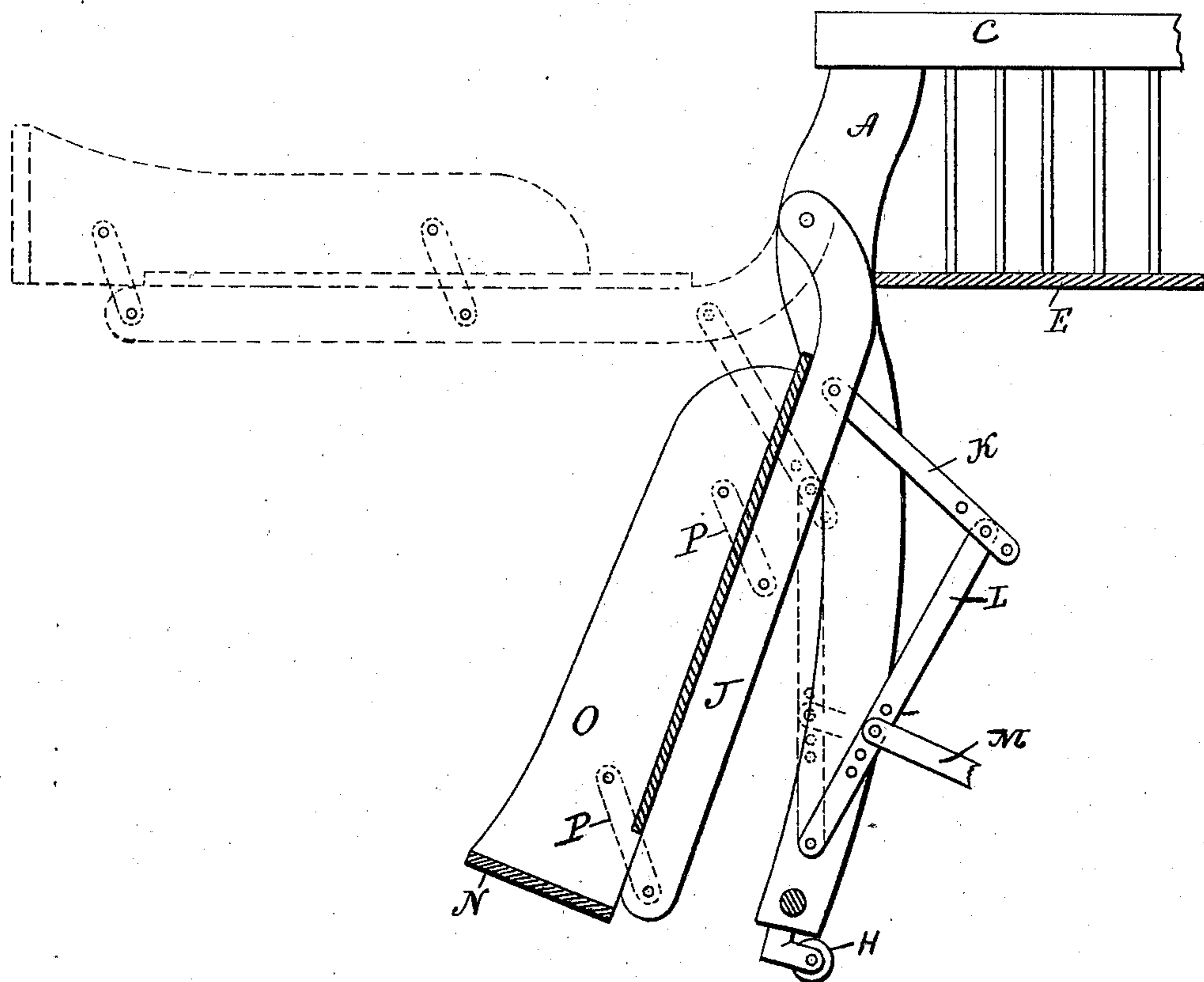
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3 Sheets—Sheet 3.

Fig. 6.



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# UNITED STATES PATENT OFFICE.

ISAAC N. DANN, OF NEW HAVEN, CONNECTICUT.

## RECLINING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 628,700, dated July 11, 1899.

Application filed October 26, 1898. Serial No. 694,626. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC N. DANN, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Reclining-Chairs; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view of a reclining-chair embodying my invention; Fig. 2, a side view of the same; Fig. 3, a sectional view with the back in an inclined position and the foot-rest raised; Fig. 4, a side view of a child's chair or go-cart, showing my invention applied thereto; Fig. 5, a broken sectional view illustrating means for locking the back with the frame; Fig. 6, a broken sectional view of the forward part of a reclining-chair with the foot-rest pivoted thereto and the parts exaggerated to more clearly illustrate the extension of the foot-rest.

This invention relates to an improvement in reclining-chairs, and by the term "chair" as hereinafter employed I wish to be understood as including easy and invalid chairs, and whether they be mounted upon wheels and rollers or not, and also smaller chairs mounted on wheels and such as are commonly called "go-carts," but in which the back is adjustably connected with the foot-rest by links, whereby the movement of the back correspondingly moves the foot-rest. In chairs of this character for children and invalids it is desirable that the foot-rest should be provided with flanges or guards across the lower edge and on each side to confine the coverings placed about the feet and legs, and in chairs of this character for grown persons it is necessary that this guard should be adjustable, so that when the foot-rest is raised the guard at the lower end should stand beyond the end of the foot-rest, giving sufficient space to permit the legs of the person resting in the chair to extend out at full length.

The object of this invention is to so connect the back with the foot-rest that the movement of the back will impart a corresponding movement to the foot-rest and whereby the

weight of the person leaning against the back in an inclined position will be sufficient to support the foot-rest in the elevated position. 55

A further object is to provide a flange or guard around the foot-rest as a means for confining the coverings; and the invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and particularly recited in the claims. 60

In Figs. 1, 2, and 3 of the drawings I have shown the invention as applied to an invalid's chair, which comprises front legs A and back legs B supporting at their upper ends arms C and connected by cross-braces D, above which is supported the seat E and beneath which is an axle F, carrying wheels G in the usual manner. If wheels are employed, the front legs are preferably provided with rollers or casters H, although the wheels may be omitted and casters applied to the front and back legs, if desired. Below the seat and between the rear legs B upon pivots *b* the back I is suspended, the lower end of the back extending downward for a considerable distance below the seat. The front legs A are preferably outwardly bowed or extended just above the seat, and between the said forward legs a foot-rest J is pivoted at a point above the seat, the outward extension of the forward legs permitting the foot-rest to drop close to the forward legs. Preferably the side bars of the foot-rest are outwardly or, as it might be said, "upwardly" bowed, and so that when the foot-rest is raised its main portion will stand in substantially the same plane as the seat, as shown in Fig. 3; but the distance from the seat to the outer end of the foot-rest will be greater when the foot-rest is raised than the distance from the seat to the outer end of the rest when the rest is dropped—a feature very desirable in reclining-chairs, particularly when the foot-rest is provided with an upwardly or outwardly extending end piece. To each side of this foot-rest, near the upper end, is pivoted a link K, and to the forward leg and near the lower end thereof is pivoted a link L. The ends of these two links are pivoted together and the link L connected with the lower end of the back I by a bar M, the connection between the bar and the link L being near the lower end of said link, 100

the connection between the ends of the links and the links and the back being such that when the back is in the elevated position it will draw the links L rearward, so as to draw the foot-rest close against the front legs of the chair. Instead of connecting the lower end of the back with the link pivoted to the forward leg of the chair, and as shown in Figs. 2 and 3, it may be connected to the link pivoted to the foot-rest, as shown in Fig. 4. When the back is inclined, as by a person leaning forcibly against it, the lower ends of the back are forced forward and the bars M turn the links L K, so as to force the lower end of the foot-rest upward into line with the seat of the chair and so as to practically form a continuation thereof. The links are so arranged that by the weight of the person leaning against the back the foot-rest will be held in its elevated position; but as soon as pressure is removed from the back the weight of the legs on the foot-rest will depress the same and force the back into its upright position.

In Fig. 4 of the drawings I have shown the same connection between the back and the foot-rest applied to a child's chair or go-cart, the only difference being that in this case the foot-rest is made shorter than for an invalid's chair.

As before stated, in the use of chairs of this character it is often desirable to cover the legs of the occupant, and in order to hold such covering in position I provide the foot-rest with a flange or guard comprising an end N and sides O O. These guards, as shown in Figs. 1, 2, and 3, are formed independent of the foot-rest and connected thereto by links P, and the end is preferably provided with rollers or casters Q. When in its down position, these casters rest upon the ground and hold the guard up against the foot-rest and the end N adjacent to the lower end of the foot-rest, and in this position the end forms a support for the foot, so that the bend of the knee is supported above the forward edge of the seat; but when the foot-rest is raised it is desirable to move this rest outward to give room for the occupant of the chair to straighten the legs, and this lengthening is permitted through the movement of the links P, which connect the guard to the foot-rest, the length of the links regulating the amount of movement. As the rest drops, the casters Q, striking the floor, lift the foot-rest, as above stated, returning it to its former position.

In children's carriages or go-carts, as shown in Fig. 4, the guard is not adjustable with relation to the foot-rest, but comprises an end and sides, whereby the covering for the feet and legs is held in position.

In reclining-chairs of this character, and especially in go-carts, it is sometimes desirable to lock the back in either the raised or reclined position, and for this purpose I secure to the back a hasp R, having a slot S, which sets over a threaded pin T, projecting

outward from a convenient part of the frame and over which pin the hasp may be passed, and which pin receives a thumb-screw U, whereby the hasp may be clamped to the frame, and so that the back may be locked in either its raised or reclined position.

Preferably I will form the bar M with a number of perforations  $m$ , so that the point of connection between the bar and the back I may be adjusted. I also provide the links L K with series of perforations  $k$   $l$ , whereby the point of connection between the bar M and the link L and the ends of the links L K may be adjusted to regulate the amount of movement imparted to the foot-rest, and so that, if desired, the links may be thrown into vertical line, as shown in Fig. 4, so as to firmly hold the foot-rest in its elevated position or so that the links will not reach a straight line, as shown in Fig. 3, whereby the release of weight against the back will permit the foot-rest to fall.

I am aware that chairs have been constructed in which the movement of the back imparts a corresponding movement to the foot-rest, and therefore do not wish to be understood as claiming broadly such as my invention; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a chair, the combination with the frame, and seat thereof, a back pivotally connected with the frame and extending downwardly below the seat thereof, a foot-rest pivoted adjacent to the forward end of the seat, and means for moving said rest, consisting of a link connected to the side of the foot-rest near the upper end, a link connected to the frame, the ends of the said links coupled together, and a bar connected with the lower end of the back, and projecting forward into engagement with one of said links, substantially as described.

2. In a chair, the combination with the frame, and seat thereof, of a back pivotally connected with the frame and extending downwardly below the seat thereof, a foot-rest adjacent to the forward end of the seat, and means for moving the said foot-rest, consisting of a link connected to the side of the foot-rest near the upper end, a link connected to the forward leg near its lower end, the ends of said links coupled together, and a bar connected with the lower end of the back and projecting forward into engagement with the link pivoted to the forward leg, substantially as described.

3. A chair comprising a seat, an outwardly-bowed forward support and a pivotally-connected back, the lower end of which extends below the seat, a foot-rest pivotally mounted in the frame forward of and above the seat and having its inner end upwardly bowed, and connections between the foot-rest and back, whereby the movement of the back is imparted to the foot-rest, substantially as described.

4. In a device of the character specified, the combination with the seat-frame, of the bar, a jointed strut pivoted at one end to the bar and at the other end to a fixed support below the seat-frame, and having a stop-lug to prevent the folding of the strut in one direction, the lever, and link connections therefrom to the strut.

5. In a device of the character specified, the combination with the seat-frame, of the bar, the jointed strut pivoted to the bar and to a fixed support below the seat-frame, and com-

prising two members, one of which is provided with a lug adapted to engage the end of the other member, the lever pivoted to the seat-frame, and a link connecting the lower end of said lever with the strut.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ISAAC N. DANN.

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